

**In the Claims:**

Cancel claims 3 - 10

4

1 ~~12.~~ (Amended) [A computer program product that implements an execution stack that  
2 stores frames for functions written in a plurality of programming languages,] A computer  
3 readable medium including computer program code for implementing an execution stack, the  
4 computer readable medium comprising:  
5 computer code that stores a first frame on the execution stack for a first function, the first  
6 function being written in a first programming language; and  
7 computer code that, in response to the first function calling a second function written in a  
8 second programming language, stores a data block on the execution stack before a second frame  
9 for the second function, the data block including at least one pointer to a previous frame on the  
10 execution stack for a previous function written in the second programming language, [and  
11 a computer readable medium that stores the computer codes.]

5

1 ~~13.~~ (Amended) The computer [program product] readable medium of claim ~~12~~,  
2 wherein the computer readable medium is selected from the group consisting of CD-ROM,  
3 floppy disk, tape, flash memory, system memory, hard drive, and data signal embodied in a  
4 carrier wave.

6

1 ~~14.~~ (Amended) A computer system [for implementing] having an execution stack  
2 that stores frames for functions written in a plurality of programming languages, the computer  
3 system comprising:  
4 a processor;  
5 a memory coupled to the processor that stores the execution stack; and  
6 a computer program operating on the processor that stores a first frame on the execution  
7 stack for a first function, the first function being written in a first programming language and, in

8 response to the first function calling a second function written in a second programming  
9 language, stores a data block on the execution stack before a second frame for the second  
10 function, the data block including at least one pointer to a previous frame on the execution stack  
11 for a previous function written in the second programming language.

7  
15.

(Amended) In a computer system, a method for [implementing an execution  
stack that stores] storing frames for functions written in a plurality of programming languages on  
an execution stack, the method comprising:

storing a first frame on the execution stack for a first function, the first function being  
written in a first programming language; and

in response to the first function calling a second function written in a second  
programming language, storing in local storage at least one pointer to the first frame on the  
execution stack and storing a second frame on the execution stack for the second function.

25  
33.

(Amended) [A computer program product that implements an execution stack  
that stores frames for functions written in a plurality of programming languages,] A computer  
readable medium comprising:

computer code that stores a first frame on the execution stack for a first function, the first  
function being written in a first programming language; and

computer code that, in response to the first function calling a second function written in a  
second programming language, stores in local storage at least one pointer to the first frame on  
the execution stack and stores a second frame on the execution stack for the second function. [;  
and

a computer readable medium that stores the computer codes.]

26  
34.

(Amended) The computer [program product] readable medium of claim 33,  
wherein the computer readable medium is selected from the group consisting of CD-ROM,

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3 floppy disk, tape, flash memory, system memory, hard drive, and data signal embodied in a  
4 carrier wave.

1 <sup>27</sup>  
~~35.~~ (Amended) A computer system [for implementing an execution stack that stores  
2 frames for functions written in a plurality of programming languages,] comprising:  
3 a processor;  
4 a memory coupled to the processor that stores [the] an execution stack; and  
5 [an] a computer program operating on the processor that stores a first frame on the  
6 execution stack for a first function, the first function being written in a first programming  
7 language; and, in response to the first function calling a second function written in a second  
a<sup>2</sup> 8 programming language, stores in local storage at least one pointer to the first frame on the  
9 execution stack and stores a second frame on the execution stack for the second function.

1 <sup>28</sup>  
~~36.~~ (Amended) A data structure stored by a computer readable medium [for  
2 implementing an execution stack,] comprising:  
3 a first frame stored by the computer readable medium on [the] an execution stack, the  
4 first frame being for a first function written in a first programming language;  
5 a second frame stored by the computer readable medium on the execution stack above the  
6 first frame, the second frame being for a second function written in a second programming  
7 language; and  
8 a data block stored by the computer readable medium on the execution stack above the  
9 second frame, the data block including at least one pointer to the first frame on the execution  
10 stack.

✓  
Add the following newly drafted claims:

1 <sup>34</sup>~~42~~. In a computer system having an execution stack that stores frames for functions  
2 written in a plurality of programming languages, a method for operating the computer system by  
3 utilizing the execution stack, the method comprising:  
4 storing a first frame on the execution stack for a first function, the first function being  
5 written in a first programming language; and  
6 in response to the first function calling a second function written in a second  
7 programming language, storing a data block on the execution stack before a second frame for the  
8 second function, the data block including at least one pointer to a previous frame on the  
9 execution stack for a previous function written in the second programming language.

1 <sup>35</sup>~~43~~. The method of claim <sup>34</sup>~~42~~, wherein the at least one pointer includes a previous stack  
2 pointer and frame pointer.

1 <sup>36</sup>~~44~~. The method of claim <sup>34</sup>~~42~~, further comprising in response to the first function  
2 calling the second function, allocating resources for functions written in programming languages  
3 other than the second programming language that may be called by the second function.

1 <sup>37</sup>~~45~~. The method of claim <sup>36</sup>~~44~~, further comprising upon exiting the second function,  
2 deallocating the resources for functions written in programming languages other than the second  
3 programming language.

1 <sup>38</sup>~~46~~. The method of claim <sup>34</sup>~~42~~, further comprising catching an exception that was raised  
2 during execution of the second function that was not handled by an exception handler for the  
3 second function.

1 <sup>39</sup>~~47~~. The method of claim <sup>38</sup>~~46~~, further comprising identifying an exception handler for  
2 the data block to handle the exception and jumping to the identified exception handler.